IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1(Currently Amended).   A method for boundary detection in a stream of digital sample values, the method comprising:

receiving the stream of digital sample values;

correlating a **single** digital sample value with a plurality of received digital sample values;

calculating a correlation value based on the correlation;

comparing the correlation value against a threshold; and

determining the presence of the boundary based on the comparison.

2(Original).   The method of claim 1, wherein the plurality of received digital sample values are selected from the received stream based on their position in different periods of a periodic sequence.

3(Original).   The method of claim 1, wherein the received stream is stored in a memory, wherein the boundary being detected is a boundary at an end of a periodic sequence, and wherein the plurality of received digital sample values are digital sample values stored in memory locations with memory addresses that correspond to integer multiples of a number of digital sample values in a period of the periodic sequence starting at the memory address of the memory location containing the digital sample value.

4(Original).   The method of claim 3, wherein the number of digital sample values in the plurality of received digital sample values is less than or equal to the number of periods in the periodic sequence.

5(Original).   The method of claim 3, wherein the plurality of received sample values are sample values stored in memory locations that are $N * 2^n$ memory locations from the memory